

REMARKS

Claims 1-5 are pending in this application. Claims 1-4 stand rejected and claim 5 is objected to. Applicant wishes to thank the Examiner for the indication of allowable subject matter in claim 5. By this Amendment, claims 6 and 7 have been added. No new matter has been added. In light of the amendments and remarks set forth below, Applicant respectfully submits that each of the pending claims is in immediate condition for allowance.

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,336,365 ("Goda"). Applicant respectfully requests reconsideration and withdrawal of this rejection.

To anticipate a claim under 35 U.S.C. § 102, the cited reference must disclose every element of the claim, as arranged in the claim, and in sufficient detail to enable one skilled in the art to make and use the anticipated subject matter. See, PPG Industries, Inc. v. Guardian Industries Corp., 75 F.3d 1558, 1566 (Fed. Cir. 1996); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1349 (Fed. Cir. 1998). A reference that does not expressly disclose all of the elements of a claimed invention cannot anticipate unless all of the undisclosed elements are inherently present in the reference. See, Continental Can Co. USA v. Monsanto Co., 942 F.2d 1264, 1268 (Fed. Cir. 1991).

Among the limitations of independent claim 1 not present cited reference is "performing a second plasma etching process of removing the polysilicon residues by using a single gas of HBr and said resist layer as a mask."

Goda discloses etching a polysilicon film 111 formed on a stepped SiO₂ film (Fig.3-5). Two etching steps are used to etch the film. The first etching process is done by using a mixed gas containing Cl₂ and HBr. By the first etching process, the polysilicon film 211 remains in a corner portion of the step. The second etching process

is done by using a mixed gas containing HBr and He. By the second etching process, the polysilicon film 211 is removed.

In contrast, according to Applicant's claims, a single gas of HBr is used in the second etching process, and the polysilicon residues are removed. Applicant specifically rules out using another gas, such as He, during the etching process as taught by Goda.

Etching using single gas of HBr is not shown in Goda. By using the single gas of HBr, it is possible to set the pressure in the process chamber to 5 to 10 mTorr. In Goda, the pressure in the process chamber is to 10 to 30 mTorr. Thus, the claimed process results in a precisely etched stepped polysilicon pattern in the second etching process.

New claims 6 and 7 also include the second plasma etching step using a single gas of HBr. Thus, for the same reasons that claim 1 is allowable, new claims 6 and 7 are also allowable.

Claims 2-5 depend from, and contain all the limitations of claim 1. These dependent claims also recite additional limitations which, in combination with the limitations of claim 1, are neither disclosed nor suggested by Goda and are also believed to be directed towards the patentable subject matter. Thus, claims 2-5 should also be allowed.

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goda. As discussed above, Goda fails to disclose Applicant's explicitly recited second etching step. Thus, it would not be obvious to modify Goda to achieve the result in the remaining claims. Thus, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Applicant has responded to all of the rejections and objections recited in the Office Action. Reconsideration and a Notice of Allowance for all of the pending claims

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are therefore respectfully requested.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If the Examiner believes an interview would be of assistance, the Examiner is welcome to contact the undersigned at the number listed below.

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Respectfully submitted,

By 

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